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30 UNITED STATES DISTRICT COURT
31 NORTHERN DISTRICT OF CALIFORNIA
32 SAN JOSE DIVISION

33 CISCO SYSTEMS, INC.,

34 Case No. 5:14-cv-05344-BLF (NC)

35 Plaintiff,

36 **ARISTA'S RESPONSE TO CISCO'S
37 SUBMISSION RE PROTECTABLE
38 ELEMENTS**

39 v.

40 ARISTA NETWORKS, INC.,

41 Dept: Courtroom 3 - 5th Floor
42 Judge: Hon. Beth Labson Freeman

43 Defendant.

44 Date Filed: December 5, 2014

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46 Trial Date: November 21, 2016

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48 **DOCUMENT SOUGHT TO BE SEALED**

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1 As the Court directed in chambers on September 9, 2016, Arista submits the following
 2 response to Cisco’s list of “protectable elements” from its copyrighted works. *See* ECF 552.
 3 This response identifies the categories of elements that the Court should find unprotectable, so
 4 that the jury evaluates only protectable elements of Cisco’s works when it considers infringement
 5 and Arista’s defenses. This response also identifies the key evidence relevant to that dissection.
 6 As the Court instructed, Arista will present its full legal arguments on these issues after the meet-
 7 and-confer process in its brief to be filed November 8.

8 **I. OVERVIEW**

9 The bulk of what Cisco claims as protectable is not, and much of it has no basis in actual
 10 Cisco works. As a preliminary matter, the Court must decide what works the jury must compare.
 11 To the extent that Cisco has now identified its asserted “works”—which it labels Cisco’s “user
 12 interface” (ECF 552-1 at 1)—those “works” remain undefined, were never registered with the
 13 Copyright Office, and have no separate existence apart from the operating systems that Cisco
 14 actually registered. Moreover, there is no evidence that the portions of the “works” asserted here
 15 were authored by Cisco rather than pieced together purely for this litigation. The Court should
 16 hold that the works at issue are the computer programs and associated user documentation that
 17 Cisco registered, as controlling law requires.

18 Next, the Court must decide which asserted elements of those works are *not* protectable.
 19 For each category of CLI elements that Cisco asserts—commands, hierarchies, modes and
 20 prompts, responses, and help descriptions—the evidence shows that most of those elements are
 21 unprotectable for one or more of the following reasons:

22 1. *Lack of originality*—elements were either taken from pre-Cisco sources or they
 23 lack the creative expression required for copyright protection;

24 2. *Words and short phrases doctrine*—most of the asserted CLI elements are
 25 unprotectable as discrete elements because they are words or short phrases;

26 3. *Unprotectable subject matter*—purely functional aspects of the CLI, including
 27 unprotectable ideas, systems, and methods of operation are not copyrightable
 28 under 17 U.S.C. § 102(b);

1 4. *Scenes-a-faire*—elements are not protectable because they flow naturally from
 2 industry standards and terminology, and the functional constraints and practical
 3 realities of building a useful CLI.

4 Likewise, nothing in Cisco’s selection or arrangement of CLI elements is protectable—to the
 5 extent that Cisco and its expert have even articulated such a theory. Cisco’s selection and
 6 arrangement of elements is purely functional, lacks any creative expression, and fails the
 7 originality requirement.

8 Next, the Court must decide the degree of protection to be given to Cisco’s asserted
 9 works. In light of the works’ factual nature and the external constraints that govern them, there is
 10 only a narrow range of possible expression. The Court should therefore hold that Cisco is entitled
 11 only to “thin” copyright protection and must satisfy the “virtual identity” standard to prove
 12 infringement.

13 Finally, based upon the outcome of dissection, the Court must adopt a workable trial plan.
 14 Cisco’s 130-page submission of allegedly individually protectable phrases and elements is too
 15 large and unwieldy to try in an orderly way in the time currently allotted for trial, and Cisco’s
 16 proposed verdict form is inadequate for the jury to resolve those claims. Arista will address this
 17 issue further at the Pre-trial Conference.

18 **II. CISCO’S ASSERTED WORKS MUST BE PROPERLY DEFINED**

19 Cisco’s submission feints at defining the copyrighted “works” that must be compared in
 20 the infringement analysis, but its vague descriptions leave the question unresolved, and it ignores
 21 controlling law. (ECF 552-1 at 1.) Cisco apparently seeks to compare Cisco’s and Arista’s “user
 22 interfaces” as the copyrighted works—but this is improper, because Cisco has never registered its
 23 “user interface” (which in any event varies among the different operating systems that are the
 24 subjects of Cisco’s twenty-six asserted registrations), and that “interface” is undefined and has no
 25 separate existence apart from the operating systems as a whole. *See* Black Rpt. (ECF 379-33) ¶
 26 690; *id.* ¶ 702 (no separate market for “the CLI”).

27 As Arista will explain further in its dissection briefing, Cisco did not receive a separate
 28 registration for its user interface by virtue of registering its operating system. “[A]ll

1 copyrightable expression owned by the same claimant and embodied in a computer program, or
 2 first published as a unit with a computer program, including computer screen displays, is
 3 considered a single work,” and thus Cisco cannot assert its user interfaces as separate works
 4 distinct from the computer programs of which they are a part. 53 Fed. Reg. 21817 (1988
 5 Copyright Office policy statement). For a work to be separately asserted in litigation, it must be
 6 one that is truly independent, that “‘can live [its] own copyright life’ and that ‘has an independent
 7 economic value and is, in itself, viable.’” *Monge v. Maya Magazines, Inc.*, 688 F.3d 1164, 1180
 8 (9th Cir. 2012) (considering photographs as works; quoting *Columbia Pictures TV, Inc. v.*
 9 *Krypton Broad. of Birmingham, Inc.*, 259 F.3d 1186, 1193 (9th Cir. 2001) (considering TV show
 10 episodes as works)); *NXIVM Corp. v. Ross Inst.*, 364 F.3d 471, 480-81 (2d Cir. 2004) (rejecting
 11 effort to treat “modules” within a manual as separate works); *Sony Computer Entm’t Am., Inc. v.*
 12 *Bleem, LLC*, 214 F.3d 1022, 1028 (9th Cir. 2000) (dismissing video game screen shots as “an
 13 insignificant portion of the complex copyrighted work as a whole”). The proper works for
 14 comparison here are Cisco’s registered software programs: each registered version of Cisco’s
 15 IOS, IOS-XR, IOS-XE, and NX-OS operating systems should be compared to Arista’s EOS.

16 Similarly, Cisco should not be permitted to lump all of its separate user manuals together
 17 as a single “work” consisting of “associated technical documents” (ECF 552-1 at 1)—or even
 18 worse, to present cherry-picked excerpts from those documents as a single “work.” Instead, each
 19 discrete manual must be compared to the allegedly infringing one to evaluate Cisco’s
 20 infringement claims. (In either case, as Arista will prove to the jury, the alleged copying from the
 21 manuals is purely *de minimis* and cannot amount to actionable infringement. *See VMG Salsoul,*
 22 *LLC v. Ciccone*, 824 F.3d 871, 878 (9th Cir. 2916).)

23 **III. PROPOSED CATEGORIES FOR DISSECTION**

24 Arista identifies below the issues requiring analytic dissection for each of the categories of
 25 allegedly protectable expression identified in Cisco’s submission (ECF 552), as well as core
 26 evidence supporting Arista’s dissection proposals. For ease of reference, this discussion tracks
 27 the order of Cisco’s submission.

1 **A. Unprotectable Aspects of the Asserted CLI Commands**2 **1. Pre-existing industry terminology**

3 Cisco's extensive use of industry terminology drawn from published industry standards
 4 and everyday industry parlance is unprotectable because it is not original or creative expression.
 5 *See Matthew Bender & Co. v. West Pub. Co.*, 158 F.3d 674, 682 (2d Cir. 1998) ("creative spark"
 6 absent where "industry conventions or other external factors" dictate selection, or expression is
 7 purely "obvious, garden-variety, or routine").

8 The Supreme Court's decision in *Feist Publications, Inc. v. Rural Tel. Serv. Co.*, 499 U.S.
 9 340 (1991), provides the framework for filtering out these unprotectable elements. There, the
 10 Court held that names, addresses, and telephone numbers were unprotectable elements of a phone
 11 book, but it considered separately whether the plaintiff had "selected, coordinated, or arranged"
 12 those unprotectable elements in an original way. *Id.* at 362. Similarly, this Court should instruct
 13 the jury that Cisco is not entitled to copyright protection for its use of pre-existing industry
 14 terminology (such as acronyms and names of protocols and parameters taken from published
 15 industry standards), but it may claim originality in its selection, coordination, or arrangement of
 16 those unprotectable elements (subject, of course, to the Court's other dissection rulings and
 17 Cisco's disclosures in discovery).

18 Relevant evidence will include:

- 19 • Arista's expert John Black confirms that the vast majority of Cisco's command
 20 terms were taken directly from published industry standards or conventional
 21 industry terminology. *See, e.g.*, Black Am. App. K (ECF 381-61) (charting
 22 standards-based and conventional terms in Cisco commands); Declaration of
 23 Ryan Wong in Support of Arista's Response to Cisco's Submission Re
 24 Protectable Elements ("Wong Decl.") Ex. 1 (Tr. Ex. 9044) (charting standards-
 25 based terms); *id.* Ex. 2 (Tr. Ex. 9043) (charting common industry terms); Black
 26 Rpt. App. A (ECF 381-2) (commands from IETF standards); Black Rpt. App. B
 27 (ECF 381-3) (commands from IEEE standards); *see infra* re functional
 28 constraints.

- 1 • Functional command words such as “banner”, “boot”, “clock”, “clear”, “enable”,
 2 “erase”, “load”, “set”, “show” and “terminal” were used in pre-existing command
 3 languages and are not original to Cisco. *See, e.g.*, Wong Decl. Ex. 3 (Tr. Ex.
 4 9045) (charting legacy command terms in asserted commands); Black Rpt. (ECF
 5 379-33) ¶ 555 (“clear”); *id.* ¶¶ 559–60 (prior use of “show” and “set” commands);
 6 *id.* ¶ 565 (“show” and “clear” commands). Almeroth Rpt. (ECF 508-2) ¶ 261
 7 (conceding terms “show,” “clear,” “help,” “ip,” “no,” “arp,” and “bgp” all
 8 “existed before Cisco”).

- 9 • [REDACTED]
 10 [REDACTED]

11 Arista MSJ Opp. Ex. 63¹ (ECF 512-8) (compilation of deposition excerpts
 12 showing Cisco employees consulted standards when authoring commands); MSJ
 13 Opp. Ex. 24 (ECF 509-11) (Cisco wanted commands that are “self-explanatory”
 14 and based on “terminology you are using from the networking world”); Arista
 15 MSJ Opp. Ex. 26 (ECF 378-29) at 439 (Cisco document); Arista MSJ Opp. Ex. 27
 16 (ECF 378-30) at 646–647 [REDACTED]
 17 [REDACTED]
 18 [REDACTED]

19 2. Elements dictated by external constraints

20 Cisco cannot claim protection in many of the words and much of the syntax of the
 21 asserted CLI commands because they flow directly from the commands’ functional nature and the
 22 industry’s preferences and expectations. *See* 17 U.S.C. § 102(b); *Apple Computer, Inc. v.*
 23 *Microsoft Corp.*, 35 F.3d 1435, 1444 (9th Cir. 1994); *Mattel, Inc. v. MGA Entm’t, Inc.*, 616 F.3d
 24 904, 913 (9th Cir. 2010). Although this question is too complex to be suitable for decision as part
 25 of analytic dissection at the level of each of the 508 asserted multi-word commands, the Court
 26 should instruct the jury that Cisco is not entitled to copyright protection for any portion of any

27 ¹ References to “Arista MSJ Opp. Ex.” refer to exhibits to the Declaration of Ryan Wong ISO
 28 Arista’s Opposition to Cisco’s Motion for Summary Judgment (ECF 380-1). *See also* ECF 508
 (publicly re-filing certain exhibits pursuant to ECF 487).

1 CLI command that the jury finds was constrained by the functional demands of creating a CLI
 2 that would be acceptable to the industry.

3 In addition to the evidence identified above, relevant evidence will include:

- 4 • Dr. Black's analysis shows that external constraints severely restricted Cisco's
 5 options in creation of its CLI. *See, e.g.*, Black Rpt. (ECF 379-33) ¶ 644 (industry
 6 constraints on development of commands); *id.* ¶ 645 (constraints from user
 7 demand for standard industry acronyms, self-explanatory commands, internal
 8 consistency across commands, extendable commands, absence of "collisions" in
 9 abbreviated commands); *id.* ¶ 646 (commands are short-cuts for descriptions of
 10 functionality, and it would make no sense to name them other than by using the
 11 common terminology used in the industry); *id.* ¶¶ 647–48 (discussing evidence of
 12 customer demand for use of familiar terminology); *id.* ¶ 649 (very few word order
 13 options available given short length of commands); *id.* ¶ 650 (constraints on
 14 commands from limitations of standard "English usage, brevity, clarity,
 15 extensibility and efficiency in the parsing of the commands"); *id.* ¶¶ 651–666
 16 (additional detail on these constraints); *id.* ¶¶ 543–642 & Arista MSJ Opp. Ex. 63
 17 (ECF 512-8) (Cisco authors consulted industry standards before incorporating
 18 standards-driven terms into CLI commands); Black Rebuttal Rpt. (ECF 379-31)
 19 ¶ 9 (rejecting Almeroth opinions). *See also* Arista MSJ Opp. Ex. 4 (Tony Li Dep.
 20 Tr.) (ECF 508-22) at 32-38, 41-49, 52-55 (discussing industry standards used at
 21 Cisco), 107-110 (explaining industry-wide use of standards-based acronyms).
 22 Cisco even used multi-word industry commands that predated Cisco and are not
 23 protectable under its copyrights, including the commands "show users" and
 24 "terminal length." Black Rpt. (ECF 379-33) ¶ 571 (pre-Cisco use of "show users"
 25 and "terminal length" commands).
- 26 • Early CLI decisions also constrained Cisco's later choices. *See, e.g.*, Arista MSJ
 27 Opp. Ex. 4 (ECF 508-22) at 126–28 (rule in CLI design at Cisco was to follow the
 28 "principle of least surprise"); Black Rebuttal Rpt. (ECF 379-31) ¶¶ 72–78, 116–

1 18, 122 (need to follow past practices for consistency and ease of use); Black Rpt
 2 (ECF 379-33) ¶¶ 602–13; Arista MSJ Opp. Ex. 17 (ECF 378-7) at 69–70
 3 [REDACTED]

4 [REDACTED] MSJ Opp. Ex. 25 (ECF 378-28) at 4
 5 [REDACTED]

6 [REDACTED]
 7 [REDACTED] MSJ Opp. Ex. 26 (ECF 378-29) at 439; MSJ Opp. Ex. 27 (ECF 378-
 8 30) at 646–647 [REDACTED]

9 [REDACTED]
 10 [REDACTED]

- 11 • CLI commands are a functional part of a system or method of operation: digital
 12 “knobs” turning on or off, or setting, their respective functionality in the operating
 13 system software. *See, e.g.*, Arista MSJ Opp. Ex. 33 (ECF 511-1) at 57:9–13 (“the
 14 command is the knob” for a setting); Arista MSJ Opp. Ex. 4 (ECF 378-7) at
 15 236:22–24 [REDACTED]; *id.* at 184:7–185:3; Arista
 16 MSJ Opp. Ex. 2 (ECF 508-21) at 75:12–76:8, 100–01 (authors named command
 17 by “what it did,” borrowing standard terminology), 152:24–153:4 (commands
 18 used to “toggle an interface up or down”); Black Rpt. (ECF 379-33) ¶ 523; MSJ
 19 Opp. Ex. 19 (ECF 380-20) [REDACTED]

20 [REDACTED] MSJ Opp. Ex. 24 (ECF 509-11) at 194
 21 (command words should be “self-explanatory,” using “terminology . . . from the
 22 networking world”); Black Rebuttal Rpt. (ECF 379-31) ¶¶ 64–73; Black MSJ
 23 Decl. Ex. 32 (ECF 381-32); Black MSJ Decl. Ex. 61 (ECF 381-61).

- 24 • Other companies’ widespread use of identical CLI commands confirms the impact
 25 of functional constraints and the narrow range of available expression. *See, e.g.*,
 26 Black Rpt. (ECF 379-33) ¶ 191; Black Am. App. G (ECF 381-41); Wong Decl.
 27 Ex. 4 (Tr. Ex. 9039) (multiple top Cisco competitors besides Arista use more than
 28 half of the asserted commands); *id.* Ex. 5 (Tr. Ex. 9041) (multiple other

networking companies use 412 of the asserted commands; 5 to 18 other companies use 289 of the commands); Black Rpt. (ECF 379-33) ¶ 274 & Black Am. App. H-DE (ECF 381-47) (Dell also supports at least 268 of the asserted commands); Black Rpt. (ECF 379-33) ¶¶ 182, 275–300 & Black App. I (ECF 381-28) (overall, Dell shares more than 16,000 commands with Cisco); Wong Decl. Ex. 6 (Tr. Ex. 9048) (charting 1600+ multi-word commands common to Dell and Cisco); Black Rpt. (ECF 379-33) ¶¶ 179–81 (summarizing other vendors' use of overlapping commands); Arista MSJ Opp. Ex. 4 (Li Dep. Tr.) (ECF 508-22) at 154–163 (Procket Networks made its CLI “bug-for-bug compatible” with Cisco’s, with no complaint from Cisco); Wong Decl. Ex. 7 (Kasten (Juniper Networks) Dep. Tr.) at 15:5-16:7, 16:24-17:3, 17:12-17 & 18:1-5 (§ 3507(e)(2)(B)(i)), 25:18-27:4, 29:5-22, 30:18-22 & 33:15-34:4 (§ 3507(e)(2)(B)(i)); Wong Decl. Ex. 8 (Cato (Dell) Dep. Tr.) at 35:4-36:8 (similarities of Dell and Cisco CLI), 39:4-16 (customers expect familiar command syntax), 47:15-48:18 & 50:5-52:4 (use of Cisco commands at customer request), 60:11-14, 61:15-19 & 62:24-65:13 (Dell, Cisco, others all use same industry standard commands); Wong Decl. Ex. 9 (Cato (Dell) Dep. Tr.) at 42:8-43:3 (§ 3507(e)(2)(B)(i)); Wong Decl. Ex. 10 (Venkatraman (HP) Dep. Tr.) at 46:1-21 (discussing § 3507(e)(2)(B)(i)), 71:21-72:6 (§ 3507(e)(2)(B)(i)); Wong Decl. Ex. 11 (Cato (Dell) Dep. Tr.) at 96:7-22 (§ 3507(e)(2)(B)(i)).

3. Unprotectable words and short phrases

26 Cisco is not entitled to copyright protection for any of its individual multi-word
27 commands under the words and short phrases doctrine. *See* 37 C.F.R. § 202.1(a); *Narell v.*

1 *Freeman*, 872 F.2d 907, 911 (9th Cir. 1989). All of its asserted multi-word commands are no
 2 more than five words long—and 420 of them are three words or fewer.

3 Relevant evidence will include:

4

- 5 ECF 552-1 at 3–33 (Cisco’s listing of asserted commands). *See also* Black
 6 Rebuttal Rpt. (ECF 379-31) ¶¶ 123–24 (188 asserted commands are only two
 7 words; 208 are three words; 420 are three words or fewer).

8 **4. Conventional command syntax that Cisco copied from other sources**

9 Cisco is not entitled to copyright protection for its use of command syntax in the form
 10 “[verb] [object or entity] [additional parameters],” which was used in pre-existing command
 11 languages and is not original to Cisco.

12 Relevant evidence will include:

13

- 14 Black Rpt. ¶ 545 (ECF 379-33) (aspects of syntax copied from pre-Cisco CLIs);
 15 *id.* ¶ 561 (commands with syntax [show] [object] [parameters]); *id.* ¶¶ 564–567
 16 (pre-Cisco DECnet commands with syntax [command] [entity]
 17 [parameter/options]); *id.* ¶ 568–70 (Cisco copying of pre-Cisco syntax); Arista
 18 MSJ Opp. Ex. 4 (Li Dep. Tr.) (ECF 508-22) at 154, 145–46 (functionality and
 19 syntax copied from TOPS-20).

20 **5. “Commands” that are not accepted by any Cisco or Arista switch**

21 For numerous asserted “commands,” Cisco has no evidence that the asserted multi-word
 22 commands appear in the form asserted in either Cisco’s or Arista’s works, depriving it of any
 23 factual basis for claiming protection over those commands. Cisco’s representations of these
 24 commands omit necessary words and parameters.

25 Relevant evidence will include:

26

- 27 Black Rpt. (ECF 379-33) ¶¶ 182, 491; Black Rebuttal Rpt. App. N (ECF 381-66–
 28 ECF 381-72) (summary of Arista command syntax for 397 incomplete asserted
 29 commands).

6. Any purported selection or arrangement of commands that is not grounded in Cisco's actual works or that Cisco did not disclose in discovery

A selection of unprotectable elements is only protectable if some creative spark exists in the selection itself. *Satava v. Lowry*, 323 F.3d 805, 811 (9th Cir.2003) (“[A] combination of unprotectable elements is eligible for copyright protection only if those elements are numerous enough and their selection and arrangement original enough that their combination constitutes an original work of authorship.”). Cisco has never identified any creative principle behind its selection of CLI commands, or any evidence of creativity in that selection. Moreover, the 508 commands asserted here are taken from multiple asserted works (to the extent those commands exist, as asserted, in any work) and comprise only a tiny fraction of each such work—indeed, they comprise only a small fraction of the commands that each such work recognizes.

Relevant evidence will include:

- Cisco's asserted compilation of commands is a subset of a much larger compilation actually present in Cisco's operating systems. *See, e.g.*, Black Rpt. (ECF 379-33) ¶¶ 692–693 (IOS contains least 16,000 documented CLI commands by Cisco's count; better count based on way Cisco counts its asserted commands here is over 450,000 distinct Cisco IOS commands).
- Cisco has no evidence that the 508 asserted commands as a set have any existence outside of this litigation, rather than being driven purely by Cisco's litigation claims about what Arista allegedly copied. Black Rebuttal Rpt. (ECF 379-31) ¶ 124 (asserted set of 508 commands does not appear in any registration, manual, or source code).
- Cisco failure of proof with respect to the selection and arrangement of CLI commands.

B. Unprotectable Aspects of the Asserted Hierarchies

Cisco's hierarchies suffer from many of the same defects as its commands, because Cisco's asserted hierarchies are simply a lawyer-generated classification of CLI commands. The relationship of the commands within a “hierarchy” is an unprotected fact or idea. There is

1 nothing separate or expressive in the “hierarchies” as distinct from the words in the commands
 2 themselves, which means that each of the asserted hierarchies is also unprotectable to the extent it
 3 comprises unprotectable commands or portions of commands (as outlined in the preceding
 4 section). The hierarchies also suffer additional defects, as discussed below.

5 **1. Hierarchies that were created for litigation**

6 Cisco has no evidence that its asserted hierarchies are real parts of its registered works or
 7 have any existence outside of this litigation. The only available evidence is that the hierarchies
 8 have no such existence, and were created purely for this litigation.

9 Relevant evidence will include.

10 • Cisco’s failure of proof. *See also* Black Rebuttal Rpt. (ECF 379-31) ¶¶ 42, 45,
 11 47–48 (hierarchies not identified in source code, drawn from multiple operating
 12 systems), 99–102.

13 **2. The idea of grouping commands by their initial words**

14 The idea of creating a command “hierarchy” by grouping CLI commands by their
 15 common initial words is not protectable under Section 102(b), and also is not original. Cisco
 16 concedes that it is not entitled to protection for the idea of its hierarchies (Cisco MSJ Opp. (ECF
 17 372) at 14), and the Court should so instruct the jury to avoid jury confusion.

18 Relevant evidence will include:

19 • This is primarily a legal question. *See* 17 U.S.C. § 102(b). The command-
 20 hierarchy concept also was not original to Cisco. *See, e.g.*, Black Rpt. (ECF 379-
 21 33) ¶¶ 633–35 (idea of organizing commands in logical tree structure not original).

22 **3. Hierarchies that contain no expression separate from their function**

23 Cisco’s “hierarchies” are purely functional systems of organizing commands (which are
 24 themselves not protectable for the reasons stated in Part III.A above), and Cisco has no evidence
 25 that they contain any expression separable from their function. *See* 17 U.S.C. § 102(b); *Apple*, 35
 26 F.3d at 1444; *Mattel*, 616 F.3d at 913 (*scenes a faire*). Moreover, Cisco has no evidence of any
 27 creativity or original expression contained in the hierarchies that is separate from the creation of
 28 the commands themselves.

1 Relevant evidence will include:

2

- 3 Cisco failure of proof. *See, e.g.*, Black Rebuttal Rpt. (ECF 379-31) ¶ 60 & n.17, ¶
4 78 (discussing Dr. Almeroth's failure to identify any "creative" or "aesthetic"
5 expression in hierarchies). *See also, e.g.*, Black Report (ECF 379-33) ¶¶ 105-106
6 (discussing the use of command hierarchies by CLIs); *id.* ¶¶ 682, 684 (functional,
7 not expressive); *id.* ¶¶ 183-90, 529-35, 581 & Apps. D-G (ECF 381-5-ECF 381-
8 8) (industry use of hierarchies); Black Rebuttal Rpt. (ECF 379-31) ¶¶ 57-60
9 (functional nature; rebuttal of Almeroth opinions); *id.* ¶¶ 73-74 (use of legacy CLI
10 features including hierarchies); *id.* ¶ 140 & App. L.1 (ECF 381-62) (vast majority
11 of networking vendors support the accused hierarchies). *See* Black Report (ECF
12 379-33) ¶¶ 178-430 (analyzing the wide use of hierarchy-based industry-standard
13 CLIs by Cisco competitors since the mid-1990s); *id.* ¶¶ 545-71 (analyzing pre-
14 Cisco DEC products that used hierarchical multi-word CLIs). *See also* Part III.A
(lack of protectability for commands underlying the hierarchies).

15 **C. Unprotectable Aspects of the Asserted Modes and Prompts**

16 **1. The names of particular modes and prompts**

17 Cisco concedes that its individual mode names and prompts are not protectable, and
18 claims copyright protection only for its "particular arrangement of modes and prompts." ECF
19 552-1 at 34. The Court should therefore instruct the jury that the names of individual modes and
20 individual prompts are not protectable.

21 Relevant evidence will include:

22

- 23 Cisco concession. *See* ECF 552-1 at 34.

24 **2. Any "selection" or "arrangement" of modes and prompts that is not
25 grounded in an actual work or that Cisco did not disclose in discovery**

26 Cisco's asserted "arrangement of modes and prompts" is also not entitled to copyright
27 protection because it is a creature of Cisco's litigation strategy. Cisco is again asserting only a
28 small subset of the actual arrangement of modes and prompts available in each work, dictated
solely by what Cisco claims has been copied. Cisco has no evidence that this selection of modes

1 and prompts is expressive, or has any existence whatsoever except that it is what Cisco's
 2 attorneys believe is similar in Arista's operating system.

3 Relevant evidence will include:

- 4 • Cisco's failure of proof. Cisco has no evidence that this "particular arrangement
 5 of modes and prompts" was conceived or created by anyone at Cisco outside of
 6 this litigation, nor has Cisco identified any creative principle behind its choice of
 7 modes and prompts at issue, or any evidence of creativity.
- 8 • Cisco's actual modes and prompts in each asserted work are much more extensive
 9 than those it asserts here. *See, e.g.*, Arista MSJ Opp. Ex. 35 (ECF 380-43) (Cisco
 10 user manual listing 70+ non-asserted modes and prompts in a single version of
 11 Cisco IOS).
- 12 • Arista's selection of modes and prompts is much broader than the accused set.
 13 *See, e.g.*, Black Rebuttal Rpt. (ECF 379-31) ¶ 23; Wong Decl. Ex. 10 (Tr. Ex.
 14 9051) (listing non-accused Arista modes/prompts).

15 **3. The idea of making certain commands available only in certain modes**

16 The function of making certain commands available only in certain modes is an
 17 unprotectable idea, and should be identified as such for the jury. 17 U.S.C. § 102(b). Moreover,
 18 it was common in pre-existing command languages and not original to Cisco. Cisco has
 19 identified no creative expression separable from the idea of creating a functional CLI with
 20 separate functional "modes" for standard users, privileged users, and global and interface
 21 configuration modes. Cisco simply used a combination of legacy modes and prompts (from pre-
 22 Cisco systems) that flows naturally from the types of functional modes needed to implement a
 23 CLI.

24 Relevant evidence will include:

- 25 • Cisco used pre-existing modes and prompts from other systems. *See* Arista MSJ
 26 (ECF 329) at 16–17; Black Rpt. (ECF 379-33) ¶¶550–551 (TOPS-20 supported
 27 both Exec and Privileged modes); *id.* ¶ 580 (SUMEX system used privileged and
 28 non-privileged modes, with # and > prompts; copied by Lougheed); Lougheed

1 Dep. Tr. (ECF 378-22) 363-371; Black Rpt. (ECF 379-33) ¶ 636 (pre-Cisco use of
 2 privileged/non-privileged modes).

- 3 Modes and prompts are a purely functional system. *See* Black Rebuttal Rpt. (ECF
 4 379-31) ¶¶ 61–62 (modes are functional method of operation; no evidence of
 5 creative expression). Functional constraints of creating a CLI that will be usable.
 6 *See supra* Part III.A; Black Rpt. (ECF 379-33) ¶ 297 (Dell use of common modes
 7 based on customer requirements).
- 8 • Numerous other networking companies use all of the same asserted
 9 modes/prompts. Black Rpt. (ECF 379-33) ¶¶ 178–79 (summary); Black Rebuttal
 10 Rpt. (ECF 379-31) & Black Am. App. C (ECF 381-39) (summarizing other
 11 vendors' use of identical set of modes/prompts); Black Rpt. (ECF 379-33) ¶ 204
 12 (AdTran AOS uses same set of CLI modes/prompts); *id.* ¶ 215 (Alcatel); *id.* ¶ 222
 13 (Allied Telesis); *id.* ¶¶ 233–41 (Avaya, Nortel & Lucent); *id.* ¶¶ 247–51 (Brocade
 14 & Foundry); *id.* ¶¶ 264–70, 272 (Dell & Force10); *id.* ¶¶ 305–07 (D-Link); *id.* ¶¶
 15 313–17 (Edge-Core); *id.* ¶¶ 323–27 (Ericsson); *id.* ¶¶ 328–29 (Redback
 16 Networks); *id.* ¶¶ 338–40 (Extreme Networks); *id.* ¶¶ 347–50 (HPE); *id.* ¶¶ 367–
 17 69 (Juniper); *id.* ¶¶ 384–86 (Lenovo, IBM & BNT); *id.* ¶¶ 391–93 (Netgear); *id.* ¶¶
 18 396–402 (NextHop, acquired by Arista); *id.* ¶¶ 407–09 (Oracle & Sun); *id.* ¶¶
 19 418–20 (Procket). *See also* Wong Decl. Ex. 7, Kasten (Juniper) Dep. Tr. at 62:10–
 20 19 (command modes [REDACTED], 62:23–63:17 [REDACTED]
 21 [REDACTED], 63:20–64:13 [REDACTED]
 22 [REDACTED] Arista MSJ Opp. Ex. 5 (Cato
 23 (Dell) Dep. Tr.) (ECF 509-1) at 37:23–38:14 (customers expect familiar command
 24 modes); Wong Decl. Ex. 9, Venkatraman (HP) Dep. Tr. at 64:2–21 ([REDACTED]
 25 [REDACTED])

26 **D. Unprotectable Aspects of the Asserted Command Responses**

27 Cisco's asserted command responses (listed at ECF 552-1, pages 80–96) are largely
 28 unprotectable for the same reasons as its commands. Much of the content of the asserted portions

1 of command responses is drawn from the same standards-driven terminology as the commands,
 2 and is equally necessary to implement the functions and parameters set by various formal industry
 3 standards. Thus, Cisco's claims that individual snippets of its command responses are protectable
 4 also fail under the copyright law's originality requirement as well as Section 102(b). *See supra*
 5 Part III.A. Also, Cisco again cannot prove that the command responses it asserts here have any
 6 real existence as a discrete "collection of outputs" outside of this litigation, rather than being
 7 cherry-picked here to support Cisco's litigation claims.

8 Relevant evidence will include:

- 9 • Individual command-response snippets are not original creative expression, but
 10 driven by functions and technical standards. *See, e.g.*, Black Rpt. (ECF 379-33) ¶¶
 11 637–41 (asserted response snippets are minimal descriptive phrases describing
 12 features and functionality, constrained by need for clarity and standard terms);
 13 Wong Decl. Ex. 11 (Liu Dep. Tr.) at 167–72.
- 14 • Failure of proof that "collection of outputs" existed prior to this litigation. No
 15 evidence of authorship or creation of asserted "collection of outputs." *See* ECF
 16 552-1 at 80–96 (asserting partial snippets from 38 responses); Black MSJ Decl.
 17 (ECF 381) ¶ 71 (over 79,000 command responses appear in Cisco IOS alone).

18 **E. Unprotectable Aspects of the Asserted Help Descriptions**

19 **1. Pre-existing industry terminology and elements dictated by external
 20 constraints**

21 All of Cisco's asserted help descriptions (also called help strings or helpdesc) are
 22 unprotectable because they contain no creative expression, but are purely functional parts of an
 23 unprotectable help system, driven by the same industry-standard and functional constraints as the
 24 commands. *See supra* Part III.A.

25 Relevant evidence will include:

- 26 • Black Rebuttal Rpt. (ECF 379-31) ¶¶ 143–145 (help strings are merely functional
 27 phrases describing what commands do), Black MSJ Decl. (ECF 381) ¶ 73;
 28 Declaration of John R. Black in Support of Arista's Response to Cisco's

1 Submission Re Protectable Elements (“Black Decl.”) Ex. 1 (Black Supplemental
 2 Report) ¶¶ 60–63, 68 (extensive use of generic functional terms and expressions
 3 used in industry before Cisco); *id.* Exs. 2–4 (Apps. O, P & Q) (same); Black Decl.
 4 Ex. 1 (Black Supp. Rpt.) ¶ 63 (example: pre-Cisco use of “Transmission Control
 5 Protocol”); *id.* ¶¶ 66–67 (example: RFC 1213 source for “identification of the
 6 contact person for this managed node”); *id.* ¶ 93 (“the bulk of the key terms and
 7 phrases used in their help strings were actually created outside of Cisco and
 8 adopted wholesale by Cisco engineers”); *id.* ¶¶ 76–77 (limited options mean
 9 multiple authors likely to create same strings independently; Wong Decl. Ex. 12
 10 (Lougheed Dep. Tr.) at 587:25–588:5; Black Decl. Ex. 1 (Black Supp. Rpt.) ¶ 78
 11 (low degree of overlapping help strings consistent with functional need to
 12 implement standard technical features / protocols).

13 • Help strings contain no creative expression, nothing except functional terms used
 14 throughout the industry to provide a functional help system. Black Decl. Ex. 1
 15 (Black Supp. Rpt.) ¶ 58 (help strings part of a functional “system”; similar systems
 16 used throughout industry); *id.* ¶ 67 (severe constraints on author “choosing short
 17 phrases to describe strictly-defined terminology”); *id.* ¶ 68 (absence of creativity).

18 **2. Unprotectable words and short phrases**

19 In addition, like the commands, the help descriptions are unprotectable under the short
 20 words and phrases doctrine. *See supra* Part III.A.

21 Relevant evidence will include:

22 • *See* Cisco Submission (ECF 552-1) at 98–110 (listing asserted help descriptions);
 23 Black Decl. Ex. 1 (Black Supp. Rpt.) ¶¶ 69–72 (summarizing length of help
 24 descriptions; 302 of originally asserted 441 strings were 5 words or less); *id.* ¶ 95
 25 (majority of asserted IOS help strings are 4 words or less); *id.* ¶ 99 (more than
 26 half of asserted IOS-XR help strings are only 2 or 3 words long; vast majority are
 27 6 words or less).

1 **3. Any “selection” or “arrangement” of help descriptions that is not
2 grounded in an actual work or that Cisco did not disclose in discovery**

3 Cisco also has no evidence that the specific “collections of help descriptions” asserted
4 here (purportedly as an original compilation authored by Cisco) have any existence outside of this
5 litigation, or any evidence of creativity in any such selection or arrangement.

6 Relevant evidence will include:

- 7 • Failure of proof as to any pre-litigation existence of the asserted compilation.
8 *See, e.g.*, Black Decl. Ex. 1 (Black Supp. Rpt.) ¶¶ 78, 80 (Cisco IOS interface
9 contains 52,290 unique help strings; Cisco originally asserted a maximum of 336
10 unique help IOS strings, or ~0.6%); *id.* ¶¶ 94–96 (9/27/16 assertions abandon
11 124 asserted IOS help strings, leaving a total of 212 distinct IOS help strings
12 asserted); *id.* ¶¶ 97–100 (9/27/16 assertions of 213 distinct IOS-XR help strings
13 include only 0.4% of help strings in IOS-XR). No evidence of authorship of
14 complete compilation as opposed to discrete help strings. *See* Wong Decl. Ex. 12
15 (Lougheed Dep. Tr.) at 583:7–11, 584:17–19, 626:21–23 (Cisco is asserting
16 “entire ensemble” or “entire package” of help strings); Black Decl. Ex. 1 (Black
17 Supp. Rpt.) ¶ 80 (discussing Lougheed testimony).²

18 **4. The idea of an interactive help system in a CLI**

19 Finally, providing a help system like the one reflected in the asserted help descriptions
20 here is an idea or system—and a common functional feature of networking interfaces throughout
21 the industry—and is not protectable. 17 U.S.C. § 102(b). The jury should be instructed that the
22 idea of providing interactive help functionality and descriptions of available commands within a
23 CLI is not original to Cisco, and is not protectable under its copyrights.

- 24 • *See* Black Decl Ex. 1 (Black Supp. Rpt.) ¶¶ 23–24; Wong Decl. Ex. 12
25 (Lougheed Dep. Tr.) at 506:6–18; Black Decl. Ex. 1 (Black Supp. Rpt.) ¶ 58

26 ² Comparison of Cisco’s original (ECF 550) and “corrected” submission (ECF 552) shows that
27 Cisco removed roughly 30 more help strings from the “corrected” submission. This further
28 reduces the percentage of strings asserted—and confirms that there is no pre-existing “set” or
compilation of help strings at issue, but only the litigation judgment of Cisco’s lawyers and
experts.

1 (industry-wide use of similar help systems); Black Rpt. (ECF 379-33) ¶ 557
 2 (TOPS-20 supported similar interactive help system).

3 **F. Unprotectable Aspects of the Asserted Manuals**

4 To the extent that Cisco alleges infringement based on similarities in manuals that derive
 5 from underlying similarities in CLI commands, responses, modes and prompts, or help
 6 descriptions, or terms and parameters from industry standards, the asserted text is unprotectable to
 7 the same degree and for the same reasons described above.

8 **G. Additional Unprotectable Aspects of the Asserted Works**

9 **1. Cisco's overall selection of CLI elements**

10 The same defects that defeat Cisco's claims that each category of asserted CLI elements is
 11 protectable also infect its broader claim (to the extent it has asserted one) that the combined
 12 selection of all five categories is protectable. Cisco has no evidence that the overall selection of
 13 CLI elements asserted here exists at all apart from this litigation. (See above for Arista's
 14 evidence that Cisco's assertion of elements in each category is selective and has no basis in
 15 Cisco's actual works, and that the actual overall selection of elements in Cisco's CLI is much
 16 broader for each category.) Cisco also has no evidence that the overall selection of CLI elements
 17 asserted here contains any creative spark, as required to support any compilation claim based on a
 18 compilation of unprotectable elements. *See Satava*, 323 F.3d at 811.

19 The Court should reject Cisco's overall selection of CLI elements as unprotectable unless
 20 and until Cisco presents convincing evidence that its specific selection of CLI elements asserted
 21 here both (1) exists outside this litigation and (2) contains some spark of creative expression in
 22 the arrangement itself (from Cisco's authors, not its lawyers). Needless to say, any such claim by
 23 Cisco must be limited to what Cisco disclosed in discovery.

24 **2. Common CLI features and functions**

25 Cisco has at times raised several other aspects of the CLI that are not confined to one of
 26 the specific categories above, and that are clearly not protectable under the law. These, too,
 27 should be identified to the jury to avoid confusion and potential decision on an improper basis.

1 First, the Court should instruct the jury that Cisco is not entitled to copyright protection
 2 for the choice to use a text-based CLI, in which command words and arguments are typed in at a
 3 command prompt, as opposed to another means of configuring or managing a device (such as a
 4 graphical user interface). Cisco has repeatedly referred to its choice of a text-based CLI in
 5 attempting to justify its claims that the CLI is protectable. *See* Cisco MSJ (ECF 348) at 2:16–19;
 6 Cisco Protectability Brief (ECF 456) at 1:23–28. However, Cisco has also conceded (as it must)
 7 that the idea of using a text-based interface is not protectable under copyright. *See id.* at 9:13–15.
 8 (The idea is also not original to Cisco, and in fact text-based interfaces were the only type of
 9 interface in use when Cisco created its CLI. Arista MSJ Opp. Ex. 18 (ECF 378-22) at 260:5–9;
 10 Black Rebuttal Rpt. (ECF 379-31) ¶¶ 79–83.) Because there is no dispute that this idea is
 11 unprotectable under Section 102(b), it should be identified as such for the jury.

12 Second, the use of multi-word commands in a CLI to manage or configure a device is
 13 neither original to Cisco nor protectable under Section 102(b). Because this undisputed legal
 14 truth will not be obvious to the jury, it should be explained to the jury as part of the Court’s
 15 analytic dissection, to avoid potential jury confusion and prejudice to Arista.

16 Finally, the function of any asserted feature (such as the function of a particular command,
 17 or a mode of operation, or a command response screen) is not protectable under Section 102(b).
 18 The Court should include this point in its analytic dissection as well, to avoid jury confusion.

19 **IV. SCOPE OF COPYRIGHT PROTECTION**

20 Evaluating the scope of copyright protection is part of the Court’s dissection analysis.
 21 Courts have long acknowledged that factual and functional works are entitled to thinner copyright
 22 protection than fictional or other artistic works. *See Feist Publications, Inc. v. Rural Tel. Service*
 23 *Co.*, 499 U.S. 340 (1991); *Harper & Row, Publishers, Inc. v. Nation Enters.*, 471 U.S. 539, 563
 24 (1985) (“The law generally recognizes a greater need to disseminate factual works than works of
 25 fiction or fantasy.”). Under Ninth Circuit law, where design choices are highly constrained by
 26 limitations inherent in a certain endeavor, and the range of possible expression is narrow because
 27 of those functional or other limitations, a copyright holder is entitled to only “thin” copyright
 28 protection. *See* Arista Dissection Brief (ECF 455) at 14. Here, the evidence outlined above

1 shows that the asserted CLI elements are factual and functional, and the realistic range of possible
2 expression that would be accepted by the industry was extremely narrow. *See supra* Parts III.A–
3 III.E. Accordingly, copyright protection is “thin” and infringement requires “virtual identity”
4 between the disputed works, rather than the “substantial similarity” required for infringement of a
5 creative work that receives broad protection. *Apple*, 35 F.3d at 1442–43; *Mattel*, 616 F.3d at 915.

6 Dated: October 18, 2016

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